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भाग 2 प्रलेखन

(पहला पुनरीक्षण)

Indian Standard

IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ) — RULES OF PROCEDURE

PART 2 DOCUMENTATION

(First Revision)

ICS 03.120.20; 31.020

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

August 2000 **Price Group 12**

Basic Standards on Electronics and Telecommunication Sectional Committee, LTD 01

NATIONAL FOREWORD

This Indian Standard (First Revision) which is identical with IEC Pub QC 001002-2 : 1998 'IEC Quality assessment system for electronic components (IECQ) — Rules of procedure — Part 2 : Documentation' issued by the International Electrotechnical Commission (IEC) was adopted by the Bureau of Indian Standards on the recommendation of Basic Standards on Electronics and Telecommunication Sectional Committee and approval of the Electronics and Telecommunication Division Council.

The revision has been undertaken in order to align Indian Standard with the latest International Standard as under IEC quality assessment system for electronic components (IECQC), it is obligatory for each member country to adopt IECQC standards as their national standards without any change.

The text of the IEC standard has been approved as suitable for publication as Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

> Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

CROSS REFERENCES

In this adopted standard, the following International Standards are referred to. Read in their respective places the following:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 9000 series on Quality Systems	IS/ISO 9000 series on Quality Systems	Identical
ISO 9001 : 1994 Quality systems — Model for quality assurance in design/development, production, installation and servicing	IS/ISO 9001 : 1994 Quality systems — Model for quality assurance in design/development, production, installation and servicing (*first revision*)	do
ISO 9002 : 1994 Quality systems — Model for quality assurance in production, installation and servicing	IS/ISO 9002 : 1994 Quality systems — Model for quality assurance in production, installation and servicing (*first revision*)	do
IEC QC 001002-3 (1998) IEC Quality assessment system for electronic components (IECQ) — Rules of procedure — Part 3 : Approval of procedures	IS QC 001002-3 : 2000 IEC Quality assessment system for electronic components (IECQ) — Rules of procedure : Part 3 Approval of procedures (*first revision*)	do

The concerned technical committee has reviewed the provisions of the following documents referred in this adopted standard and has decided that this is acceptable for use in conjunction with this standard:

IEC QC 001003 (1998)	IEC Quality assessment system for electronic components (IECQ) — Guidance documents
IEC QC 001004	Specifications list
IEC QC 001005	Register of firms, products and services approved under the IECQ system, including ISO 9000

(*Continued on third cover*)

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Indian Standard

IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ) — RULES OF PROCEDURE

PART 2 DOCUMENTATION

(First Revision)

1 Standards and specifications for Qualification Approval and Capability Approval

1.1 General principles

All standards and specifications used within the System for Qualification Approval and Capability Approval are considered to belong to a single structure, the principles of which and the requirements applicable to the specifications are described in IEC Guide 102: Electronic components - Specification structures for quality assessment (Qualification Approval and Capability Approval). The structure comprises the following types of documents:

— basic specifications;
— generic specifications;
— sectional specifications;
— blank detail specifications;
— detail specifications.

1.2 Preparation and implementation

1.2.1 Technical committees of the IEC concerned with Qualification Approval (QA) and Capability Approval (CA) of electronic components are recommended to prepare specifications in accordance with the general principles laid down in IEC Guide 102. Generic or sectional specifications shall contain a definition of the "primary stage of manufacture" (see IEC Guide 102, subclause 4.2 b)). In case of difficulty, they are invited to consult the Secretariat of the CMC.

1.2.2 The Secretariats of the technical committees are requested to inform the CMC, at an early stage in their preparation and in any case before submission to the voting procedures, of any documents being prepared which may be applicable within the System. The Secretary of the CMC shall inform the National Authorized Institutions (NAIs) of the existence of such documents.

The NAIs shall inform the CMC of any points, related to the operation of the System, contained in such documents which they consider could create difficulties in their use. Where the CMC confirms the views of the NAIs, the fact will be drawn to the attention of the Secretariat of the relevant technical committee.

1.2.3 Each IEC standard relating to QA and CA of electronic components which has been prepared in accordance with the normal procedures of the IEC and, additionally, those given in 1.2.1 and 1.2.2, shall be acceptable to the CMC for use in the System.

For such electronic components within the scope of an IEC standard for which a participating country desires to apply the System, it shall implement that standard either by its adoption or by the publication of a national standard having an identical technical content and using wherever possible the same layout as the corresponding IEC standard. Such national standards may be published in the language of the implementing country and, in such a case, an official translation in one of the three official languages of the IEC (see article 21 of the Statutes of the IEC) shall be made available by the NAI upon a request from any other NAI.

1.2.4 The CMC shall examine any difficulties which have been reported to it arising from the application of the IEC standard in the System and shall take such action as it considers necessary.

It shall also inform the Secretary of the relevant technical committee about the problem.

1.3 Acceptance of provisional specifications

1.3.1 When a need arises for generic, sectional or blank detail specifications or instructions for the preparation of detail specifications, which are not available for use within the System, provisional specifications may be submitted by an NAI and used provided that the procedures given in the following subclauses are complied with.

1.3.2 Before preparing a generic, sectional or blank detail specification or instructions for the preparation of detail specifications, the NAI shall ensure that no such document is available, or within one year of expected publication under the normal procedures of the IEC, or in process as a draft provisional specification.

An IEC standard is considered to be available as soon as there is a positive IEC Report on the Voting on the final draft International Standard.

1.3.3 The NAI is responsible for ensuring that the provisional specification prepared for submission to the CMC complies with the Rules of the System and that it is compatible with any relevant IEC standard.

1.3.4 The NAI shall submit the draft provisional specification to the Secretary of the CMC with a request that the document be authorized for use within the System. It shall also give an undertaking that no certification will be made to the document prior to its acceptance by the CMC.

The number of copies to be sent to the Secretary of the CMC shall be sufficient for circulation to the other NAIs and to the Secretary of the appropriate technical committee of the IEC.

1.3.5 The Secretary of the CMC shall circulate the copies of the draft provisional specification to the NAIs for voting for acceptance under the procedures given in 14.3 of the Basic Rules.

Comments shall be requested only with respect to

a) compliance with the Rules of the System, and

b) compatibility with relevant IEC standards.

The Secretary of the CMC shall circulate a Report on the Voting, based on the comments received, within two months of the end of the voting period.

The document shall be rejected if one-fifth or more of the NAIs vote against acceptance of the document.

Where less than one-fifth of the NAIs have voted against the document, it shall be subject to any corrective action being taken which may be prescribed in the Report on the Voting.

The originating NAI shall, within two months of circulation of the Report on the Voting, either send its formal acceptance, or raise its objections, in which case these shall be discussed at the next meeting of the CMC.

1.3.6 The provisional specification shall become valid on the date that the specification, amended as required in the Report on the Voting, is received by the Secretary of the CMC. The other NAIs shall be informed of this fact and that use may be made of the document. The end of the validity of the provisional specification shall be either

— three years from the date of validation given above (the CMC may extend this period of use), or

— one year after the publication by the IEC of a comparable specification, whichever is the sooner.

After the end of the validity, no further QA or CA to this specification shall be granted.

1.3.7 The Secretary of the relevant technical committee of the IEC shall be informed of the decisions contained in the Report on the Voting and of its acceptance by the originating NAI and shall be requested that a comparable IEC standard be prepared as soon as is possible. The technical committee should take, as its first draft, the provisional specification. The Secretary of the technical committee shall also be requested to inform the CMC of any problems encountered in the preparation of this standard.

1.4 Preparation and adoption of detail specifications

1.4.1 When a detail specification is prepared by a technical committee of the IEC, the procedures specified in 1.2 shall apply.

1.4.2 A detail specification may also be prepared

a) by the National Standards Organization (NSO) of a participating country,

b) by an approved manufacturer, or

c) by industrial task groups.

NOTE Specifications may be originated by users but they shall be submitted by either an approved manufacturer or an NSO.

It is the responsibility of the NAI of the relevant country to ensure that the detail specification complies with the Rules of the System and, in particular, that the requirements in the appropriate blank detail specification or instructions for the preparation of detail specifications have been fulfilled.

The right to release components under the System to detail specifications prepared in accordance with a) or b) shall be withdrawn immediately if it can be shown that these specifications do not comply with the Rules of the System.

1.4.3 Detail specifications prepared in accordance with 1.4.2 shall be sent for information by the responsible NAI to the Secretary of the CMC, to the other NAIs, and to the relevant technical committees of the IEC.

1.5 Certified Records of Released Lots

Whilst Certified Records of Released Lots are no longer part of the System and no longer mentioned in IEC Guide 102, they may be prepared by direct agreement between the manufacturer and his customer. The text of the former Rule of Procedure on this subject is reproduced in annex B.

2 Certificates of approval and attestation of conformity

2.1 Certificates of approval

2.1.1 Organization approval certificates

Certificates of approval are issued following organization approval to QC 001002-3, clause 2. The certificates shall make direct reference to the relevant standard in the ISO 9000 series.

The required formats and texts for a certificate of approval of manufacturer, a certificate of approval of specialist contractor and a certificate of approval of manufacturer in respect of Technology Approval, concerning ISO 9001, are given in Figures 1, 3 and 5, and, concerning ISO 9002, in Figures 2, 4 and 6 respectively.

Certificates for other organizations shall follow the same format with appropriate changes in the text.

The lower left and right hand side boxes of the certificates may be used at the discretion of the issuing body, for example for the name, address and logo of the issuing body, as well as official signature and date.

The IECQ logo (see QC 001002-3, Guidance Documents) may appear as a background to the certificate, either in grey (for example 15% of black) or pale blue (for example 20% of Pantone 286).

2.1.2 Qualification Approval certificates

2.1.2.1 Figure 7 gives the format and text for QA certificates.

NOTE Neither the detail specification nor the certificate of approval taken separately can completely define the range approved. This definition shall be assured by the two taken together.

2.1.2.2 The certificate of approval shall contain references to the detail specification under which the approval is granted, together with its issue number and date of issue.

The certificate of approval shall not conflict with the specification and, in particular, approval shall not be given to any components which lie outside the range permitted by the specification.

The IECQ logo (see QC 001002-3, Guidance Documents) may appear as a background to the certificate, either in grey (for example 15% of black) or pale blue (for example 20% of Pantone 286).

2.1.2.3 The following principles apply to certificates of QA.

NOTE References below to "the certificate" includes all attachments and appendices, the existence of which shall be identified on the front of the certificate under the heading "Description of the component".

a) Where the approval covers the whole range of a detail specification, it shall be stated clearly in the certificate of approval.

b) The certificate shall contain sufficient information to define precisely the range of approval.

c) The description of the component should be as short as possible consistent with the need to give precise details of the range approved. Ideally, the statement should not exceed one side of an A4-size sheet.

d) A full list of the manufacturer's type numbers shall be given with a clear statement as to their relationship to styles and other codes in the detail specification. Where necessary, this information may be given in an annex to the certificate.

e) As far as possible, all relevant information in the description of the component will be reproduced in QC 001005, Register of Products, Firms and Services approved under the IECQ System, including ISO 9000.

2.1.2.4 More detailed guidance on the information to be given in certificates in respect of various types of component is contained in annex A.

2.1.3 Capability Approval certificates

2.1.3.1 Figure 8 gives the format and text for CA certificates.

The IECQ logo (see QC 001002-3, Guidance Documents) may appear as a background to the certificate, either in grey (for example 15% of black) or pale blue (for example 20% of Pantone 286).

2.1.3.2 All annexes to the certificate shall be listed under "Description of the technology" on the front of the certificate.

The capability abstract shall form part of the certificate as an annex.

2.1.3.3 The following principles shall apply to certificates of CA.

NOTE Reference below to "the certificate" includes all attachments and appendices, the existence of which shall be identified on the front of the certificate under the heading "Description of the technology".

2.1.3.3.1 A certificate of CA shall consist of two or three parts:

a) Certificate (mandatory) - a completed certificate in accordance with Figure 8.

b) Abstract (mandatory) - an annex containing the capability abstract, which describes the capability in summary form to be reproduced in QC 001005. This summary should not exceed more than one side of an A4-size sheet.

c) standard catalogue items (optional) - additionally, where relevant, a second annex should be provided which lists standard catalogue items which fall within the scope of the approval. Such a list shall include the manufacturer's identification for the components and references to the IECQ specifications in which the technical descriptions of the items may be found.

2.1.3.4 Where a capability detail specification (Cap DS) exists, the certificate shall quote all the information as required by the Cap DS.

2.1.4 Process Approval certificates

Figures 9a and 9b give the format and text for PA certificates.

The certificates shall follow the same format as the QA certificates and CA certificates with appropriate changes in the text (see 2.1.2 and 2.1.3 and Figures 7 and 8, respectively).

2.1.5 Technology Approval certificates

Figures 10a and 10b give the format and text for TA certificates.

The certificates shall follow the same format as the QA certificates and CA certificates with appropriate changes in the text (see 2.1.2 and 2.1.3 and Figures 7 and 8, respectively).

2.2 Procedures for the attestation of conformity

2.2.1 Introduction

An attestation of conformity shall be authenticated by the application of, when available, an IEC Mark as a Mark of Conformity or by the issue of a Declaration of Conformity which may also be known as a Certificate of Conformity.

The application of a Mark of Conformity or the issue of a Declaration of Conformity attests that the component(s) conform with the requirements of the detail specification concerned.

2.2.2 General requirements for attestation of conformity

2.2.2.1 The information shall be intelligible to the customer and shall not be in coded form.

2.2.2.2 All forms of attestation shall be authorized by the Designated Management Representative (DMR) or the Approved Signatory and only for components being part of a released lot (see QC 001002-3, clause 2).

2.2.2.3 Arrangements for authenticating the attestation of conformity shall be controlled under secure conditions approved by the National Supervising Inspectorate (NSI).

2.2.2.4 When a Mark of Conformity is being used, the DMR shall maintain a record of the application of the Mark.

2.2.3 Marking of the packaging

In addition to marking the components, the following information, together with any IEC Mark of Conformity, shall be marked on the labelling and/or packaging:

a) the name of the NSI;
b) the approved organization;
c) the inspection lot identification under which the components were released;
d) the National Certification Body (NCB) which granted the approval if different from a);
e) the number of the detail specification to which the component conforms. If required by the national rules, the national number of the detail specification may be added;
f) the name of the manufacturer;
g) that form of authentication which has been agreed with the NSI;
h) the component identification giving the full catalogue name and reference of the component allotted to it by the manufacturer.

2.3 Mark of conformity

2.3.1 The Mark of Conformity consists of a symbol which shall be registered. Information permitting the identification of

a) the NSI,

b) the manufacturer's or the distributor's national approval,

c) the NCB, if different from a) (optional), and

d) the inspection lot,

shall be placed close to the symbol in the order given above.

NOTE Import regulations of some countries may require the country of origin to be marked.

2.3.2 The information given in a) to d) should normally allow the delivery lot to be traced to the manufacturer's test report. If this is not so, the necessary extra information shall be given on the package and/or on the component.

2.3.3 At the manufacturer's discretion, a smaller symbol accompanied only by the information in a) and b) may be used for the marking of individual components, provided that they are contained in a sealed package as described in 2.3.4.

2.3.4 The Mark of Conformity shall be applied to an adhesive tape or to any other similar means of sealing the package. This is not compulsory if the individual components bear the Mark of Conformity. In the latter case, the Mark of Conformity shall be placed in the vicinity of the marking required by the relevant specification.

2.3.5 When sealed packages are used, the protection by the Mark of Conformity cannot be given if the order is less than the capacity of the smallest package for the corresponding component or, for part of the order, if this is not a multiple of the capacity of the smallest package.

2.3.6 Sealed packages may be opened by an approved distributor in order to re-distribute their contents in adequate packages of smaller unit capacity, the latter in turn being sealed with the Mark of Conformity by the distributor. This operation ensures that the components delivered come from an identifiable package which the distributor has opened on his premises, and that the operations that he has carried out on the components are as specified in QC 001002-3, clause 2, annex A, item 12).

2.3.7 The Mark of Conformity shall be affixed under the responsibility of the DMR and only on components from released lots or their packages or both.

2.3.8 The stamps or the sealing material bearing the Mark of Conformity shall be stored and used under secure conditions approved by the NSI.

2.3.9 The DMR shall keep a register of seals or sealing material bearing the Mark of Conformity so that the NSI may know where they are kept and how they are used.

2.4 Declaration of Conformity

2.4.1 Manufacturers

The declaration for use by manufacturers, for which Figure 11 is a recommended layout, shall contain the following information:

a) the name of the manufacturer, and if he wishes, his address and other details;

b) the trade mark and/or symbol of the manufacturer, if he wishes;

c) the IECQ logo;

d) the component identification giving the full catalogue name and reference of the component allotted to it by the manufacturer;

e) the manufacturer's inspection lot identification under which the component was released. If the component has been re-inspected by the manufacturer (for example, after long storage) the new inspection lot identification shall also be given;

f) the number of the detail specification to which the component conforms. If required by the national rules, the national number of the detail specification may be added;

g) the following text:

> "The components in this package have been released according to the above numbered detail specification under the IECQ System in accordance with the procedures given in QC 001002-3, under the supervision of (.......*), a full member of the Inspectorate Co-ordination Committee."
>
> * *the name of the NSI under whose supervision the original release took place and, where different, of the NSI who supervises the distributor.*

h) the manufacturer's national approval number as granted to him by the NCB;

i) the date of the declaration;

j) that form of authentication which has been agreed with the NSI.

The DMR shall maintain records showing the relationship between a Declaration of Conformity and the inspection lot to which it refers. The DMR may, if he wishes, allot a reference number to the Declaration of Conformity.

2.4.2 Specialist contractors

The declaration for use by specialist contractors, for which Figure 12 is a recommended layout, shall follow the same format as the declaration for use by the manufacturer with appropriate changes in the text (see 2.4.1 and Figure 11 respectively).

2.4.3 Distributors

The declaration for use by distributors, for which Figure 13 is a recommended layout, shall contain the following information:

a) the name of the distributor, and if he wishes, his address and other details;

b) the trade mark and/or symbol of the distributor, if he wishes;

c) the IECQ logo;

d) the name of the manufacturer who released the components;

e) the component identification giving the full catalogue name and reference of the component allotted to it by the manufacturer, together with full catalogue name and reference, if any, allotted by the distributor;

f) the manufacturer's inspection lot identification under which the component was released. If the component has been reinspected while in the distributor's hands (for example, after long storage) the new inspection lot identification shall also be given;

g) the number of the detail specification to which the component conforms. If required by the national rules, the national number of the detail specification may be added;

h) the name of the NSI under whose supervision the initial release took place and, where different, of the NSI who supervises the distributor;

i) the following text:

"The components in this package
- have been declared by the manufacturer as having been released according to the above numbered specification,
- have been stored under suitable conditions and have not been used or modified or repaired, in accordance with the procedures given in QC 001002-3 , under the supervision of the above mentioned National Supervising Inspectorates, full members of the ICC. These components are therefore released and delivered under the IECQ System.";

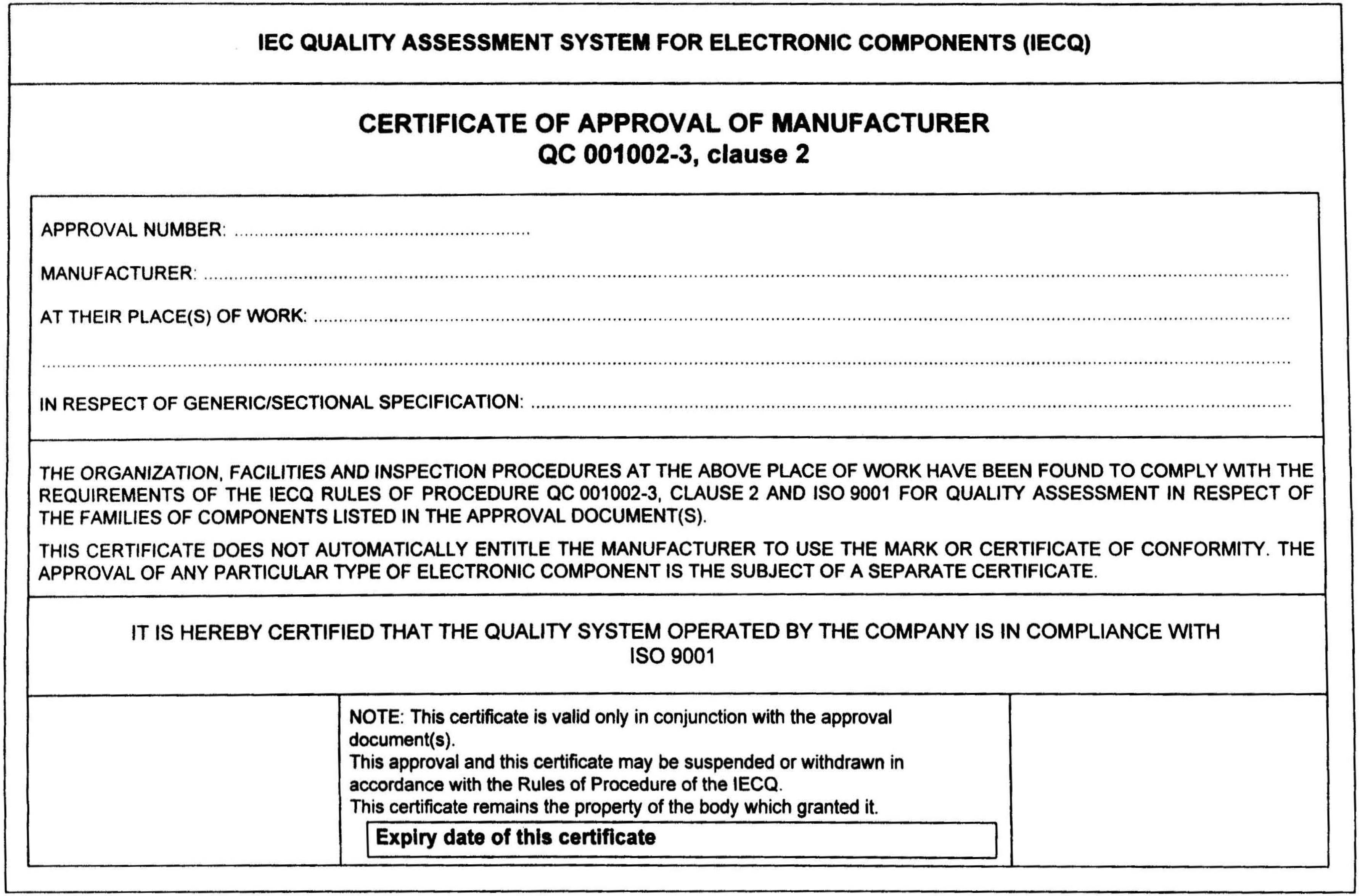
j) the distributor's national approval number as granted to him by the NCB;

k) the date of the declaration;

l) that form of authentication which has been agreed with the NSI.

If an approved distributor repacks released components, he shall mark the final packaging in accordance with 2.2.3, including his own identification.

The DMR shall maintain records showing the relationship between a Declaration of Conformity and the inspection lot to which it refers. The DMR may, if he wishes, allot a reference number to the Declaration of Conformity.



IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

CERTIFICATE OF APPROVAL OF MANUFACTURER
QC 001002-3, clause 2

APPROVAL NUMBER: ....

MANUFACTURER: ....

AT THEIR PLACE(S) OF WORK: ....

....

IN RESPECT OF GENERIC/SECTIONAL SPECIFICATION: ....

THE ORGANIZATION, FACILITIES AND INSPECTION PROCEDURES AT THE ABOVE PLACE OF WORK HAVE BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF THE IECQ RULES OF PROCEDURE QC 001002-3, CLAUSE 2 AND ISO 9001 FOR QUALITY ASSESSMENT IN RESPECT OF THE FAMILIES OF COMPONENTS LISTED IN THE APPROVAL DOCUMENT(S).

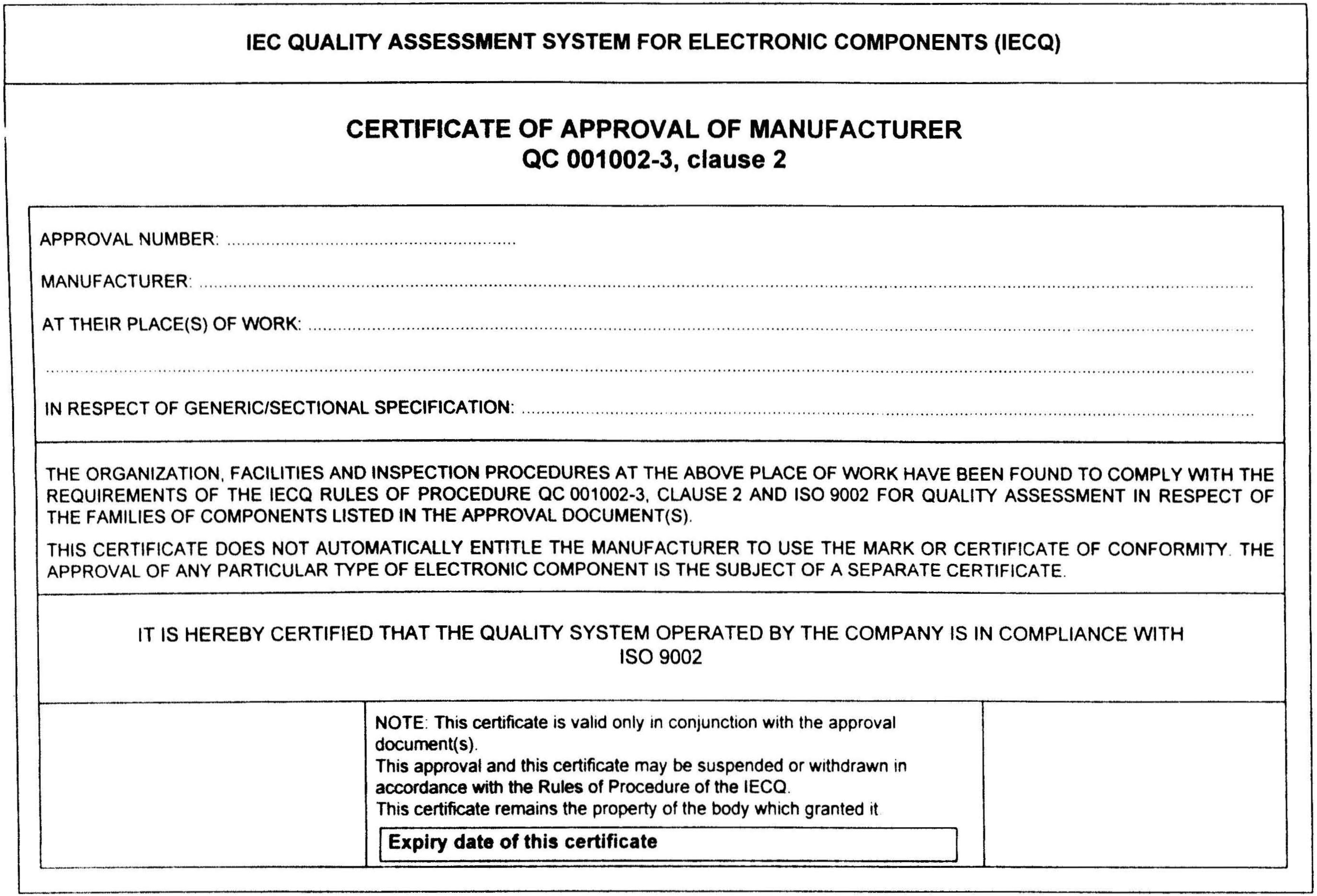
THIS CERTIFICATE DOES NOT AUTOMATICALLY ENTITLE THE MANUFACTURER TO USE THE MARK OR CERTIFICATE OF CONFORMITY. THE APPROVAL OF ANY PARTICULAR TYPE OF ELECTRONIC COMPONENT IS THE SUBJECT OF A SEPARATE CERTIFICATE.

IT IS HEREBY CERTIFIED THAT THE QUALITY SYSTEM OPERATED BY THE COMPANY IS IN COMPLIANCE WITH
ISO 9001

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

Figure 1 — Certificate of approval of manufacturer (including reference to ISO 9001)



IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

CERTIFICATE OF APPROVAL OF MANUFACTURER
QC 001002-3, clause 2

APPROVAL NUMBER: ....

MANUFACTURER: ....

AT THEIR PLACE(S) OF WORK: ....

....

IN RESPECT OF GENERIC/SECTIONAL SPECIFICATION: ....

THE ORGANIZATION, FACILITIES AND INSPECTION PROCEDURES AT THE ABOVE PLACE OF WORK HAVE BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF THE IECQ RULES OF PROCEDURE QC 001002-3, CLAUSE 2 AND ISO 9002 FOR QUALITY ASSESSMENT IN RESPECT OF THE FAMILIES OF COMPONENTS LISTED IN THE APPROVAL DOCUMENT(S).

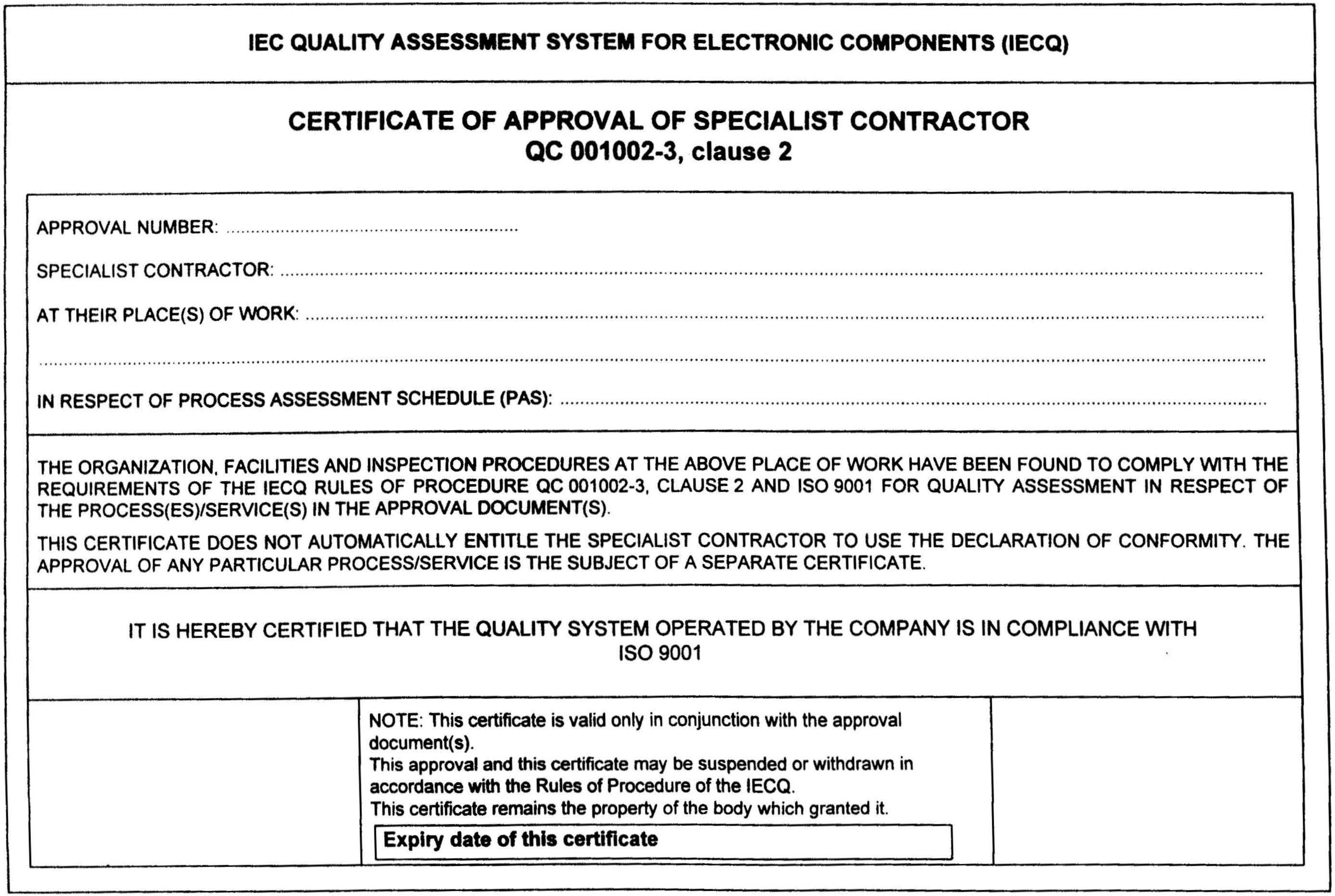
THIS CERTIFICATE DOES NOT AUTOMATICALLY ENTITLE THE MANUFACTURER TO USE THE MARK OR CERTIFICATE OF CONFORMITY. THE APPROVAL OF ANY PARTICULAR TYPE OF ELECTRONIC COMPONENT IS THE SUBJECT OF A SEPARATE CERTIFICATE.

IT IS HEREBY CERTIFIED THAT THE QUALITY SYSTEM OPERATED BY THE COMPANY IS IN COMPLIANCE WITH ISO 9002

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

Figure 2 — Certificate of approval of manufacturer (including reference to ISO 9002)



IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

CERTIFICATE OF APPROVAL OF SPECIALIST CONTRACTOR
QC 001002-3, clause 2

APPROVAL NUMBER: ....

SPECIALIST CONTRACTOR: ....

AT THEIR PLACE(S) OF WORK: ....

....

IN RESPECT OF PROCESS ASSESSMENT SCHEDULE (PAS): ....

THE ORGANIZATION, FACILITIES AND INSPECTION PROCEDURES AT THE ABOVE PLACE OF WORK HAVE BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF THE IECQ RULES OF PROCEDURE QC 001002-3, CLAUSE 2 AND ISO 9001 FOR QUALITY ASSESSMENT IN RESPECT OF THE PROCESS(ES)/SERVICE(S) IN THE APPROVAL DOCUMENT(S).

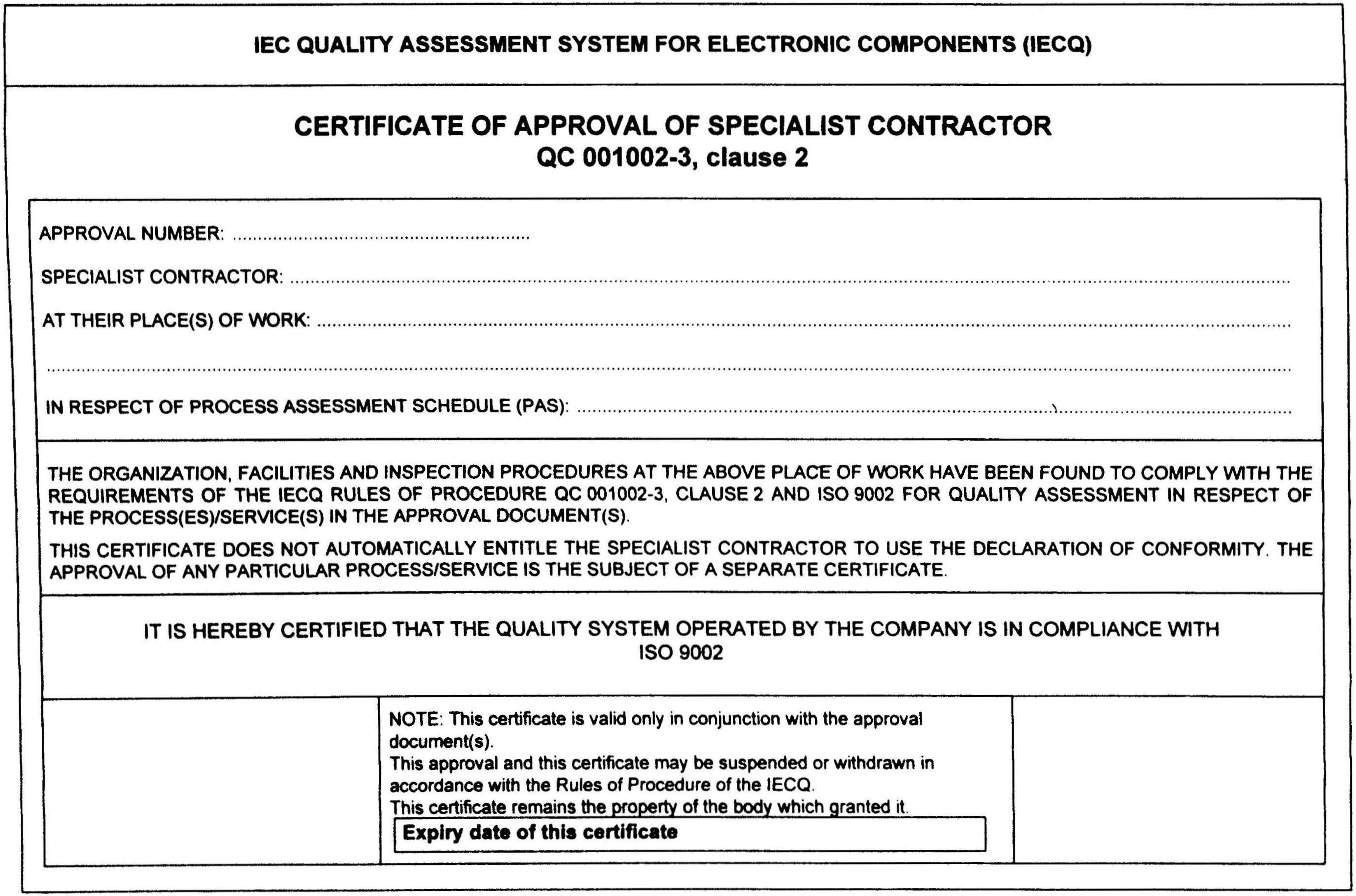
THIS CERTIFICATE DOES NOT AUTOMATICALLY ENTITLE THE SPECIALIST CONTRACTOR TO USE THE DECLARATION OF CONFORMITY. THE APPROVAL OF ANY PARTICULAR PROCESS/SERVICE IS THE SUBJECT OF A SEPARATE CERTIFICATE.

IT IS HEREBY CERTIFIED THAT THE QUALITY SYSTEM OPERATED BY THE COMPANY IS IN COMPLIANCE WITH ISO 9001

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

Figure 3 — Certificate of approval of specialist contractor (including reference to ISO 9001)



IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

CERTIFICATE OF APPROVAL OF SPECIALIST CONTRACTOR
QC 001002-3, clause 2

APPROVAL NUMBER: ....

SPECIALIST CONTRACTOR: ....

AT THEIR PLACE(S) OF WORK: ....

....

IN RESPECT OF PROCESS ASSESSMENT SCHEDULE (PAS): ....

THE ORGANIZATION, FACILITIES AND INSPECTION PROCEDURES AT THE ABOVE PLACE OF WORK HAVE BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF THE IECQ RULES OF PROCEDURE QC 001002-3, CLAUSE 2 AND ISO 9002 FOR QUALITY ASSESSMENT IN RESPECT OF THE PROCESS(ES)/SERVICE(S) IN THE APPROVAL DOCUMENT(S).

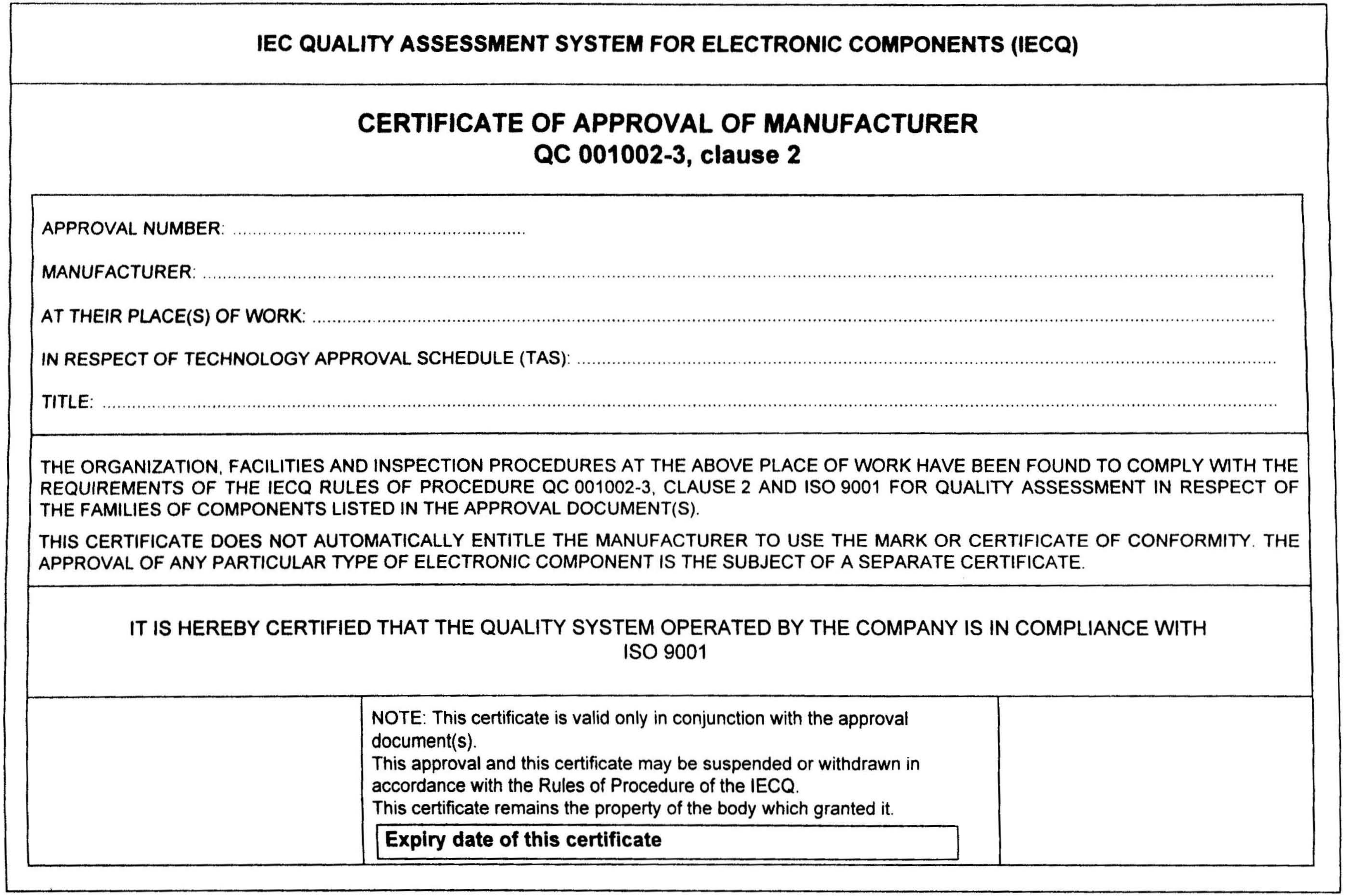
THIS CERTIFICATE DOES NOT AUTOMATICALLY ENTITLE THE SPECIALIST CONTRACTOR TO USE THE DECLARATION OF CONFORMITY. THE APPROVAL OF ANY PARTICULAR PROCESS/SERVICE IS THE SUBJECT OF A SEPARATE CERTIFICATE.

IT IS HEREBY CERTIFIED THAT THE QUALITY SYSTEM OPERATED BY THE COMPANY IS IN COMPLIANCE WITH ISO 9002

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

Figure 4 — Certificate of approval of specialist contractor (including reference to ISO 9002)



IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

CERTIFICATE OF APPROVAL OF MANUFACTURER
QC 001002-3, clause 2

APPROVAL NUMBER: ....

MANUFACTURER: ....

AT THEIR PLACE(S) OF WORK: ....

IN RESPECT OF TECHNOLOGY APPROVAL SCHEDULE (TAS): ....

TITLE: ....

THE ORGANIZATION, FACILITIES AND INSPECTION PROCEDURES AT THE ABOVE PLACE OF WORK HAVE BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF THE IECQ RULES OF PROCEDURE QC 001002-3, CLAUSE 2 AND ISO 9001 FOR QUALITY ASSESSMENT IN RESPECT OF THE FAMILIES OF COMPONENTS LISTED IN THE APPROVAL DOCUMENT(S).

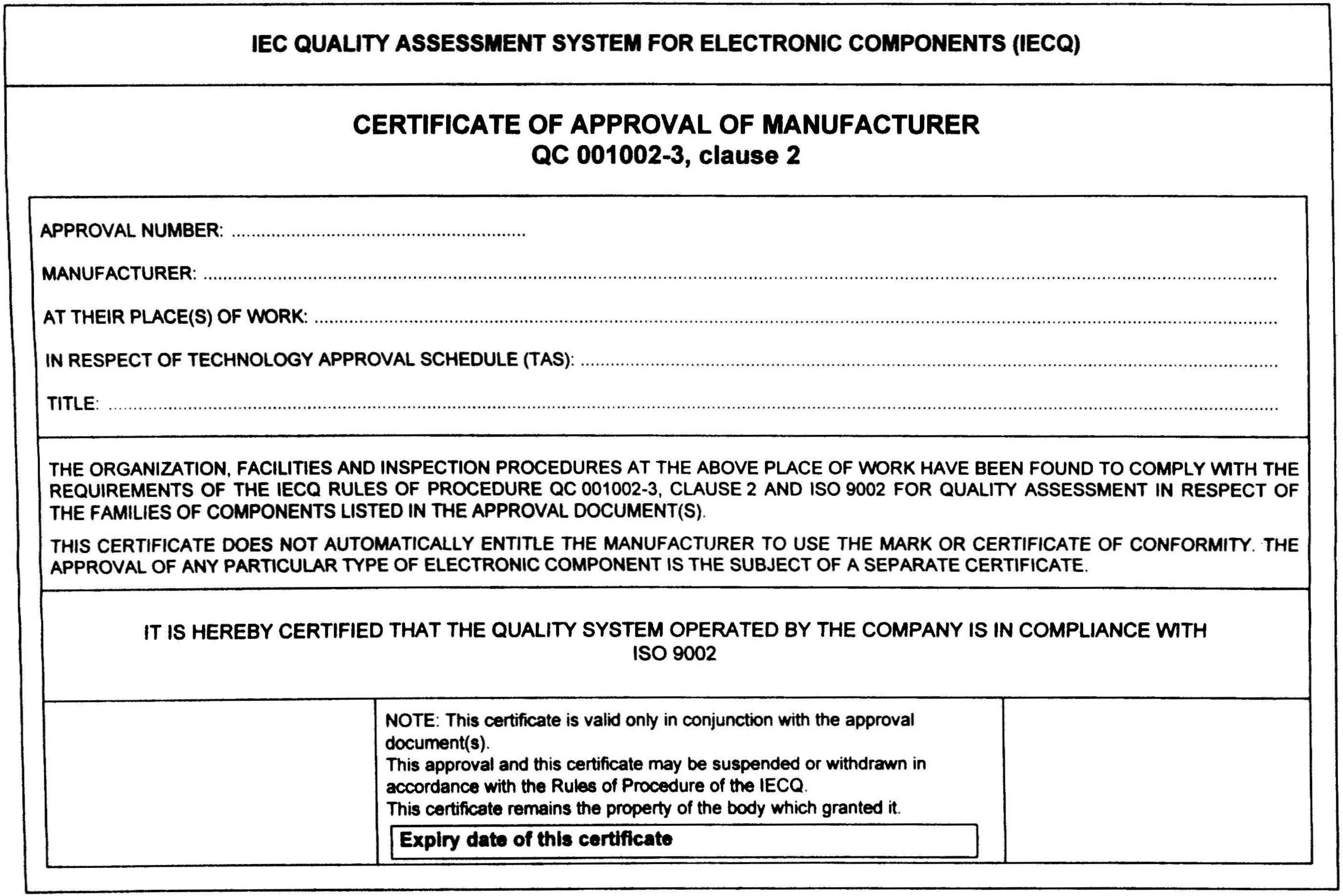
THIS CERTIFICATE DOES NOT AUTOMATICALLY ENTITLE THE MANUFACTURER TO USE THE MARK OR CERTIFICATE OF CONFORMITY. THE APPROVAL OF ANY PARTICULAR TYPE OF ELECTRONIC COMPONENT IS THE SUBJECT OF A SEPARATE CERTIFICATE.

IT IS HEREBY CERTIFIED THAT THE QUALITY SYSTEM OPERATED BY THE COMPANY IS IN COMPLIANCE WITH ISO 9001

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

Figure 5 — Certificate of approval of manufacturer (including reference to ISO 9001)



IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

CERTIFICATE OF APPROVAL OF MANUFACTURER
QC 001002-3, clause 2

APPROVAL NUMBER: ....

MANUFACTURER: ....

AT THEIR PLACE(S) OF WORK: ....

IN RESPECT OF TECHNOLOGY APPROVAL SCHEDULE (TAS): ....

TITLE: ....

THE ORGANIZATION, FACILITIES AND INSPECTION PROCEDURES AT THE ABOVE PLACE OF WORK HAVE BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF THE IECQ RULES OF PROCEDURE QC 001002-3, CLAUSE 2 AND ISO 9002 FOR QUALITY ASSESSMENT IN RESPECT OF THE FAMILIES OF COMPONENTS LISTED IN THE APPROVAL DOCUMENT(S).

THIS CERTIFICATE DOES NOT AUTOMATICALLY ENTITLE THE MANUFACTURER TO USE THE MARK OR CERTIFICATE OF CONFORMITY. THE APPROVAL OF ANY PARTICULAR TYPE OF ELECTRONIC COMPONENT IS THE SUBJECT OF A SEPARATE CERTIFICATE.

IT IS HEREBY CERTIFIED THAT THE QUALITY SYSTEM OPERATED BY THE COMPANY IS IN COMPLIANCE WITH ISO 9002

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

Figure 6 — Certificate of approval of manufacturer (including reference to ISO 9002)

IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

QUALIFICATION APPROVAL CERTIFICATE

GRANTING THE RIGHT TO USE THE MARK OR DECLARATION OF CONFORMITY

(QC 001002-3, clause 3)

CERTIFICATE NUMBER:

ISSUE NUMBER:

DETAIL SPECIFICATION NUMBER:

ISSUE NUMBER:

DATE:

DESCRIPTION OF THE COMPONENT:

MANUFACTURED BY:

PLACE(S) OF MANUFACTURE:

MANUFACTURER'S APPROVAL NUMBER:

THE RANGE OF VALUES APPROVED IS AS DESCRIBED IN THE APPROVAL DOCUMENT(S) NUMBER:

PLACE:

DATE:

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

Figure 7— Qualification Approval Certificate

IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

CAPABILITY APPROVAL CERTIFICATE

GRANTING THE RIGHT TO USE THE MARK OR DECLARATION OF CONFORMITY
(QC 001002-3, clause 4)

CERTIFICATE NUMBER: ISSUE NUMBER:

GENERIC/SECTIONAL SPECIFICATION NUMBER(S): ISSUE NUMBER:

DATE:

TITLE(S):

DESCRIPTION OF THE TECHNOLOGY:

MANUFACTURED BY:

PLACE(S) OF MANUFACTURE:

CAPABILITY MANUAL REFERENCE NUMBER:

CAPABILITY ABSTRACT NUMBER: ISSUE NUMBER: DATE:

MANUFACTURER'S APPROVAL NUMBER:

THE PRODUCTS COVERED BY THIS APPROVAL ARE DESCRIBED IN MORE DETAIL IN CAPABILITY ABSTRACT NUMBER:

PLACE:

DATE:

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

Figure 8 — Capability Approval Certificate

IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

PROCESS APPROVAL CERTIFICATE

GRANTING THE RIGHT TO USE THE MARK OR DECLARATION OF CONFORMITY
(QC 001002-3, clause 5)

CERTIFICATE NUMBER:	ISSUE NUMBER:	
PROCESS ASSESSMENT SCHEDULE NUMBER(S):	ISSUE NUMBER:	
	DATE:	
TITLE(S):		
DESCRIPTION OF THE PROCESS/SERVICE:		
PROVIDED BY:		
PLACE(S):		
PROCESS SPECIFICATION NUMBER:	ISSUE NUMBER:	DATE:
SPECIALIST CONTRACTOR'S APPROVAL NUMBER:		
PROCESS MANUAL:	ISSUE NUMBER:	DATE:

The process(es)/service(s) covered by this approval are described in more detail in attached process abstract on page 2 of this certificate.

PLACE:

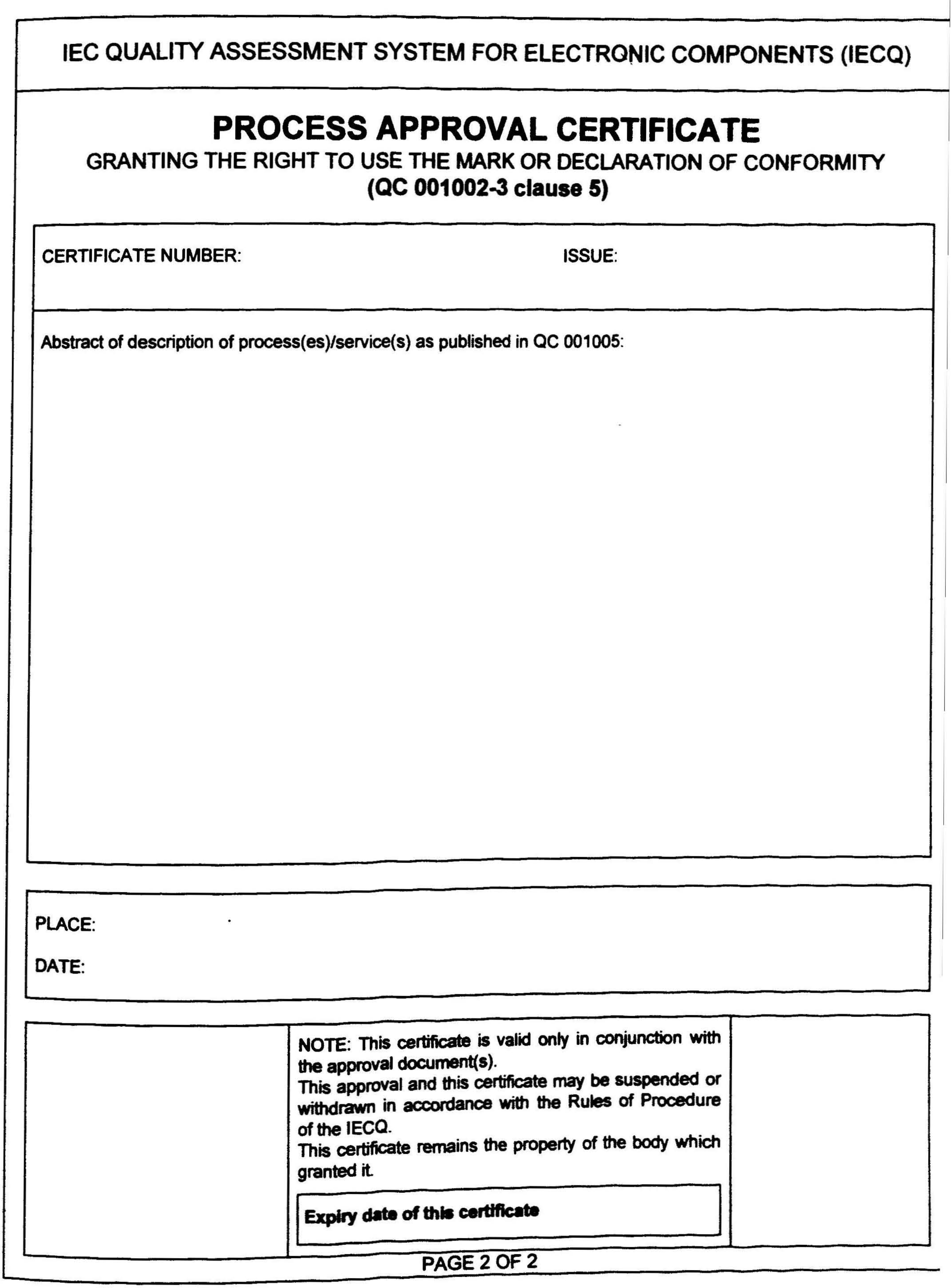
DATE:

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

PAGE 1 OF 2

Figure 9a — Process Approval Certificate



IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

PROCESS APPROVAL CERTIFICATE

GRANTING THE RIGHT TO USE THE MARK OR DECLARATION OF CONFORMITY

(QC 001002-3 clause 5)

CERTIFICATE NUMBER: ISSUE:

Abstract of description of process(es)/service(s) as published in QC 001005:

PLACE:

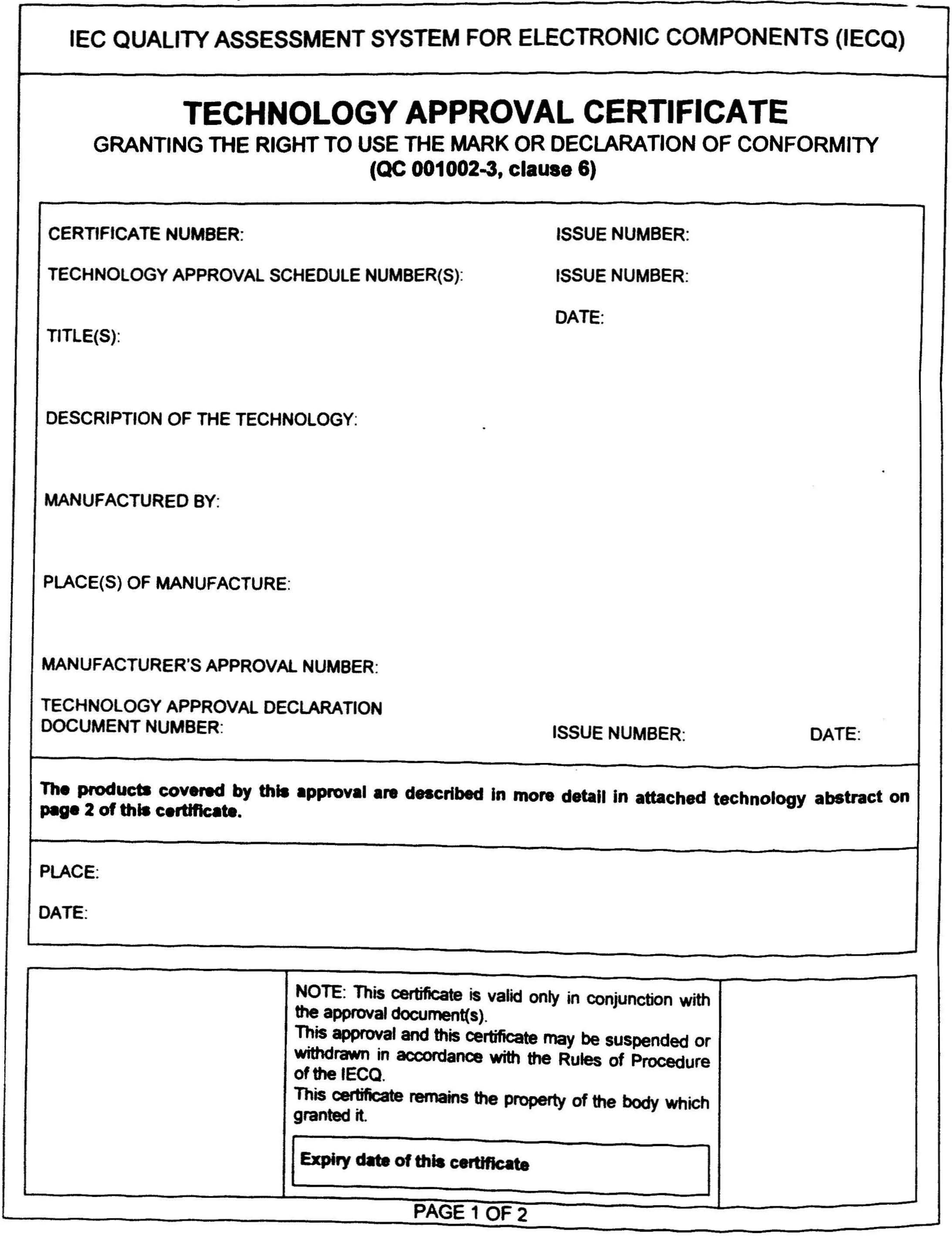
DATE:

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

PAGE 2 OF 2

Figure 9b — Process Approval Certificate (continued)



IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

TECHNOLOGY APPROVAL CERTIFICATE

GRANTING THE RIGHT TO USE THE MARK OR DECLARATION OF CONFORMITY

(QC 001002-3, clause 6)

CERTIFICATE NUMBER: ISSUE NUMBER:

TECHNOLOGY APPROVAL SCHEDULE NUMBER(S): ISSUE NUMBER:

DATE:

TITLE(S):

DESCRIPTION OF THE TECHNOLOGY:

MANUFACTURED BY:

PLACE(S) OF MANUFACTURE:

MANUFACTURER'S APPROVAL NUMBER:

TECHNOLOGY APPROVAL DECLARATION DOCUMENT NUMBER: ISSUE NUMBER: DATE:

The products covered by this approval are described in more detail in attached technology abstract on page 2 of this certificate.

PLACE:

DATE:

NOTE: This certificate is valid only in conjunction with the approval document(s).

This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.

This certificate remains the property of the body which granted it.

Expiry date of this certificate

PAGE 1 OF 2

Figure 10a — Technology Approval Certificate

IEC QUALITY ASSESSMENT SYSTEM FOR ELECTRONIC COMPONENTS (IECQ)

TECHNOLOGY APPROVAL CERTIFICATE

GRANTING THE RIGHT TO USE THE MARK OR DECLARATION OF CONFORMITY

(QC 001002-3, clause 6)

CERTIFICATE NUMBER: ISSUE:

Abstract of description of technology(ies) as published in QC 001005:

PLACE:

DATE:

NOTE: This certificate is valid only in conjunction with the approval document(s).
This approval and this certificate may be suspended or withdrawn in accordance with the Rules of Procedure of the IECQ.
This certificate remains the property of the body which granted it.

Expiry date of this certificate

PAGE 2 OF 2

Figure 10b — Technology Approval Certificate (continued)

(Frame for Manufacturer's name, address and trademark/symbol)

DECLARATION OF CONFORMITY

Component identification:..

Inspection lot identification: ....

Detail specification: ....

The components in this package have been released according to the above numbered detail specification under the IECQ System in accordance with the procedures given in document QC 001002-3, under the supervision of

....

(National Supervising Inspectorate)

a full member of the Inspectorate Co-ordination Committee.

Manufacturer's national approval number:

....

Date:

Designated Management Representative (DMR)

Figure 11 — Declaration of Conformity (Manufacturer)

(Frame for Specialist Contractor's name, address and trademark/symbol)

DECLARATION OF CONFORMITY

Product* identification: ....

(In the context of Specialist Contractors the term product is taken to include specialized services, materials, piece parts, and incomplete components)*

Inspection lot identification: ....

Process Assessment Schedule (PAS): ....

The process(es)/technical service(s) has(have) been provided according to the above numbered Process Assessment Schedule under the IECQ System in accordance with the procedures given in document QC 001002-3, under the supervision of

....

(National Supervising Inspectorate)

a full member of the Inspectorate Co-ordination Committee.

Specialist Contractor's national approval number:

....

Date:

Designated Management Representative (DMR)

Figure 12 — Declaration of Conformity (Specialist Contractor)

(Frame for Distributor's name, address and trademark/symbol)

DECLARATION OF CONFORMITY

Component manufacturer: ....

Component identification:...

Inspection lot identification:..

Detail specification: ....

National Supervising Inspectorate:

- supervising the manufacturer:..

- supervising the distributor: ....

The components in this package
- have been declared by the manufacturer as having been released according to the above numbered detail specification,
- have been stored under suitable conditions and have not been used or modified or repaired, in accordance with the procedures given in QC 001002-3, under the supervision of the above mentioned National Supervising Inspectorates, full members of the Inspectorate Co-ordination Committee. These components are therefore released and delivered under the IECQ System.

Distributor's national approval number:

....

Date:

Designated Management Representative (DMR)

Figure 13 — Declaration of Conformity (Distributor)

3 Regulations for Process Assessment Schedules (PAS)

3.1 Definitions

See QC 001002-3, clause 5 for definitions specific to Process Approval.

3.2 Rules for the preparation of Process Assessment Schedules (PASs)

PASs shall be drafted in accordance with QC 200000: Requirements for Process Approval Schedules for Process Approval.

3.2.1 Number, Issue number, Amendment status and date of PASs

On the front page, each PAS shall carry a reference number allotted to it by the CMC Secretariat, the Issue number, the Amendment status, the month and year of publication and, the IECQ logo as described in QC 001003, Guidance Documents.

Amendments shall be carried out according to 3.3, following which the Issue number and the Amendment status of the PAS shall be altered.

3.2.2 Responsibility for preparation

PASs may be prepared, either

- by a National Authorized Institution (NAI), or its National Standards Organization (NSO), or
- by an industrial task group, or
- by an IEC TC or SC, or
- by an individual specialist contractor.

Groups responsible for the preparation of PASs shall preferably include representation to cover regional/international interests.

3.2.3 Constitution of an industrial task group

Industrial task groups will normally be a comprehensive representation of specialist contractors within an industry, technology or service, but representation by the other organizations given in 3.2.2 above is not excluded.

A typical group could comprise

- specialist contractor (co-ordinator),
- other specialist contractors within the technology / service,
- customers/users,
- NSO.

3.2.4 Avoidance of duplication of PASs

Before preparing a PAS, the organization undertaking its preparation should consider the possibility of using

— PASs already existing within the IECQ System for similar specialist processes, or

— PASs in the course of preparation.

If there is no appropriate PAS in existence, or in the course of preparation, for a given specialist process or service, a new PAS may be prepared. Information concerning the availability of published PASs may be found in QC 001004, Specifications List.

3.2.5 Notification of intention to prepare a PAS

After completing the actions required by 3.2.4, the organization shall notify its National Certification Body (NCB) of the intention to prepare a PAS using the appropriate forms given in annex H of QC 200000.

3.2.6 Responsibility of an NCB for the transmission of PASs

The NCB shall be responsible for the recording and transmission to the CMC Secretariat of notifications to prepare a PAS.

3.2.7 Responsibilities of the CMC Secretariat

On receipt of a PAS notification, the CMC Secretariat shall review the application against the current list of PASs and, unless concerned by possible conflict between the proposed PAS and existing PASs, shall allocate to the PAS a number in the series from QC 200001 to QC 209999 inclusive and notify the NCB accordingly.

In the event of possible conflict the CMC Secretariat should refer the request to an ad hoc Arbitration Panel. The Chairman of the CMC shall appoint the members of the Arbitration Panel after consultation with the Secretary of the CMC.

3.2.8 Responsibility of the ad hoc Arbitration Panel in the case of conflict

In the event of conflict or a need for technical arbitration, the decision of the Arbitration Panel shall be final.

3.2.9 Responsibility of a National Supervising Inspectorate (NSI) for verification

When PASs are prepared by an NAI, an NSO, an individual specialist contractor or, an industrial task group, the relevant NSI shall be responsible for verifying that such PASs comply with the requirements of QC 200000 before use is made of them within the System.

3.2.10 Responsibilities of an IEC TC or SC or a user group for verification

When PASs are prepared by an IEC TC or SC, or by a user group, that committee or group shall be responsible for ensuring that such PASs comply with the requirements of QC 200000 before use is made of them within the System.

3.2.11 Publication of a PAS

3.2.11.1 When a PAS has been prepared in at least one of the official languages of the IEC and checked for compliance in accordance with 3.2.9, it is the responsibility of the relevant NCB to arrange for publication and to send a copy to the CMC Secretariat. This NCB shall accept responsibility for ensuring that one copy is sent to all other NAIs. At this stage the PAS may be used within the System.

3.2.11.2 When a PAS has been prepared and checked for compliance in accordance with 3.2.10, the IEC TC or SC, or user group shall submit a copy to the CMC Secretariat for distribution. At this stage the PAS may be used within the System.

3.2.12 Listing of PASs

Upon receiving the PAS, the CMC Secretary shall list the PAS in QC 001004, Specifications List.

3.3 Amendments to PASs

3.3.1 Definitions

There are three types of amendments to PASs.

3.3.1.1 Corrections

Corrections of a purely editorial nature of obvious technical mistakes.

These also include the up-dating of references where the changes in the documents referred to do not affect the technical content of the PAS (see 3.3.3 and 3.3.5).

3.3.1.2 Additions

An extension to the scope which does not affect existing specialist contractors' approvals.

3.3.1.3 Other changes

All other changes not covered by 3.3.1.1 or 3.3.1.2 (see 3.3.6).

3.3.2 Responsibility for the publication of amendments

When an amendment to a published PAS has been prepared, it shall be published by the CMC Secretariat.

3.3.3 Procedure for amendments limited to corrections only

3.3.3.1 The responsibility for the initiation of corrections lies with the responsible originator.

3.3.3.2 The publication of an amendment containing corrections only is effected either

- as a complete reprint of the PAS showing the Amendment number, or
- as a list of minor corrections to be made to the PAS and, where applicable, one or more new pages to replace the original page(s), together with instructions for effecting the amendment.

If not already included in the original PAS, an amendment record sheet shall be attached to the amendment.

3.3.3.3 Amendments published in these ways shall be identified as follows:

— when the PAS is completely reprinted, by an indication on all pages such as, 'QC 200001, Issue 1 including Amendment 1', or

— when the PAS is not completely reprinted, by an indication on all amendment sheets and replacement pages, such as, 'QC 200001, Issue 1 including Amendment 1'.

3.3.4 Procedure for amendments containing additions

3.3.4.1 When additions have to be made to a published PAS, the proposer of the amendment shall submit the proposed amendment to the originator of the PAS for agreement. When agreement cannot be reached, the proposer may prepare a new PAS (which shall bear a new QC reference number) based on the original PAS but incorporating the necessary amendments.

3.3.4.2 When a registered IECQ PAS has been amended to include agreed additions, its Issue number shall be raised.

3.3.4.3 An amendment containing additions to a PAS is published, either

— as a complete reprint of the PAS showing the new Issue number, or

— in the form of one or more new pages to replace or add to the original page(s), together with instructions for effecting the amendment. If not already included in the original PAS, an amendment record sheet shall be attached to the amendment.

3.3.5 Amendments containing both corrections and additions

Amendments to a PAS which contain both corrections and additions shall be published in accordance with the procedure given in 3.3.4.3.

3.3.6 Procedure for other changes

If it is necessary to introduce into any PAS changes other than those covered in 3.3.3, 3.3.4 or 3.3.5, a new PAS bearing a new QC reference number shall be published in accordance with 3.2.

3.4 Withdrawal of PASs

3.4.1 In the case of withdrawal of a published and registered PAS, its QC reference number is not re-allotted.

3.4.2 The NCB responsible for the original publication and distribution shall inform the CMC Secretariat and all NCBs of such withdrawal so that an opportunity is given for them to take such steps as are considered necessary.

4 Regulations for Technology Approval Schedules (TAS)

4.1 Definitions

See QC 001002-3, clause 6 for definitions specific to Technology Approval.

4.2 Rules for the preparation of TASs

TASs shall be prepared in accordance with QC 210000, Requirements for Technology Approval Schedules.

4.2.1 Number, Issue number, Amendment status and date of TASs

On the front page, each TAS shall carry a reference number allotted to it by the CMC Secretariat, the Issue number, the Amendment status, the month and year of publication, and the IECQ logo as described in QC 001003, Guidance Documents, Document 10.

Amendments shall be carried out in accordance with 4.3, following which the Issue number and the Amendment status of the TAS shall be altered.

4.2.2 Responsibility for preparation

TASs may be prepared either

- — by a National Authorized Institution (NAI), or its National Standards Organization (NSO), or
- — by an industrial task group, or
- — by an IEC TC or SC, or
- — by an individual manufacturer.

Committees and groups responsible for the preparation of TASs shall preferably include representation to cover regional / international interests.

4.2.3 Constitution of an industrial task group

Industrial task groups should normally comprise a comprehensive representation of manufacturers within an industry, technology or service, but representation by the other organizations given in 4.2.2 above is not excluded.

A typical group could comprise

- — manufacturer (co-ordinator),
- — other manufacturers within the technology/service,
- — customers/users,
- — NSO.

4.2.4 Avoidance of duplication of TASs

Before preparing a TAS, the organization undertaking its preparation should consider the possibility of using

- TASs already existing within the IECQ System for similar specialist processes, or
- TASs in the course of preparation.

If there is no appropriate TAS in existence, or in the course of preparation, for a given specialist process or service, a new TAS may be prepared. Information concerning the availability of published TASs may be found in QC 001004, Specifications List.

4.2.5 Notification of intention to prepare a TAS

After completing the actions required in 4.2.4, the organization shall notify its National Certification Body (NCB) of the intention to prepare a TAS, using the appropriate forms given in annex E of QC 210000.

4.2.6 Responsibility of an NCB for the transmission of TASs

The NCB shall be responsible for the recording and transmission to the CMC Secretariat of notifications to prepare a TAS.

4.2.7 Responsibilities of the CMC Secretariat

On receipt of a TAS notification, the CMC Secretariat shall review the application against the current list of TASs and, unless concerned by possible conflict between the proposed TAS and existing TASs, shall allocate to the TAS a number in the series from QC 210001 to QC 219999 inclusive and notify the NCB accordingly.

In the event of possible conflict the CMC Secretariat shall refer the request to an ad hoc Arbitration Panel. The Chairman of the CMC shall appoint the members of the Arbitration Panel after consultation with the Secretary of the CMC.

4.2.8 Responsibility of the ad hoc Arbitration Panel in the case of conflict

In the event of conflict or a need for technical arbitration, the decision of the Arbitration Panel shall be final.

4.2.9 Responsibility of a National Supervising Inspectorate (NSI) for verification

When TASs are prepared by an NAI, an NSO, an individual manufacturer, or an industrial task group, the relevant NSI shall be responsible for verifying that such TASs comply with the requirements of QC 210000 before use is made of them within the System.

4.2.10 Responsibilities of an IEC TC or SC or a user group for verification

When TASs are prepared by an IEC TC or SC, or by a user group, that committee or group shall be responsible for ensuring that such TASs comply with the requirements of QC 210000 before use is made of them within the System.

4.2.11 Publication of a TAS

4.2.11.1 When a TAS has been prepared in at least one of the official languages of the IEC and checked for compliance in accordance with 4.2.9, it is the responsibility of the relevant NCB to arrange for publication and to send a copy to the CMC Secretariat. This NCB shall accept responsibility for ensuring that one copy is sent to all other NAIs. At this stage the TAS may be used within the System.

4.2.11.2 When a TAS has been prepared and checked for compliance in accordance with 4.2.10, the IEC TC or SC or user group shall submit a copy to the CMC Secretariat for distribution. At this stage the TAS may be used within the System.

4.2.12 Listing of TASs

Upon receiving the TAS, the CMC Secretary shall list the TAS in QC 001004, Specifications List.

4.3 Amendments to TASs

4.3.1 Definitions

There are three types of amendments to TASs.

4.3.1.1 Corrections

Corrections of a purely editorial nature of obvious technical mistakes.

These also include the up-dating of references where the changes in the documents referred to do not affect the technical content of the TAS (see 4.3.3 and 4.3.5).

4.3.1.2 Additions

An extension to the scope which does not affect existing manufacturers' approvals.

4.3.1.3 Other changes

All other changes not covered by 4.3.1.1 or 4.3.1.2 (see 4.3.6).

4.3.2 Responsibility for the publication of amendments

When an amendment to a published TAS has been prepared, it shall be published by the CMC Secretariat.

4.3.3 Procedure for amendments limited to corrections only

4.3.3.1 The responsibility for the initiation of corrections lies with the responsible originator.

4.3.3.2 The publication of an amendment containing corrections only is effected either

— as a complete reprint of the TAS showing the Amendment number, or

— as a list of minor corrections to be made to the TAS and, where applicable, one or more new pages to replace the original page(s), together with instructions for effecting the amendment.

If not already included in the original TAS, an amendment record sheet shall be attached to the amendment.

4.3.3.3 Amendments published in these ways shall be identified as follows:

- when the TAS is completely reprinted, by an indication on all pages such as, 'QC 210001, Issue 1 including Amendment 1', or
- when the TAS is not completely reprinted, by an indication on all amendment sheets an replacement pages such as, 'QC 210001, Issue 1 including Amendment 1'.

4.3.4 Procedure for amendments containing additions

4.3.4.1 When additions have to be made to a published TAS, the proposer of the amendment shall submit the proposed amendment to the originator of the TAS for agreement. When agreement cannot be reached, the proposer may prepare a new TAS (which shall bear a new QC reference number) based on the original TAS but incorporating the necessary amendments.

4.3.4.2 When a registered IECQ TAS has been amended to include agreed additions, its Issue number shall be raised.

4.3.4.3 An amendment containing additions to a TAS is published either

- as a complete reprint of the TAS showing the new Issue number, or
- in the form of one or more new pages to replace or add to the original page(s), together with instructions for effecting the amendment. If not already included in the original TAS, an amendment record sheet shall be attached to the amendment.

4.3.5 Amendments containing both corrections and additions

Amendments to a TAS which contain both corrections and additions shall be published in accordance with the procedure given in 4.3.4.3.

4.3.6 Procedure for other changes

If it is necessary to introduce into any TAS changes other than those covered in 4.3.3, 4.3.4 or 4.3.5, a new TAS bearing a new QC reference number shall be published in accordance with 4.2.

4.4 Withdrawal of TASs

4.4.1 In the case of withdrawal of a published and registered TAS, its QC reference number is not re-allotted.

4.4.2 The NCB responsible for the original publication and distribution shall inform the CMC Secretariat and all NCBs of such withdrawal so that an opportunity is given for them to take such steps as are considered necessary.

Annex A

(normative)

Components characteristics information required for approval certificates

A.1 Relays

For electromechanical all-or-nothing relays, information on the following items should be included on the certificate where the detail specification covers a range of different types:

- number of poles;
- contact variants;
- termination variants;
- mounting variants;
- coil variants.

In most cases, the variants listed above are covered by codes within the detail specification. However, to avoid ambiguity and errors the approval certificate should give the codes and a description of the corresponding approved variants.

A.2 RF Connectors

Within the IECQ System a single specification reference covers a single basic form of RF connector. The variable items which may need to be covered in defining the scope of an approval are

- variant number,
- body finish,
- reference to relevant cable,
- contact finish, and
- mounting variants.

In most specification documents, the variant number represents a combination of body finish and relevant cables, so a statement of variant numbers should suffice.

A.3 Capacitors

The main variable items for capacitors are

- rated voltage,
- rated capacitance,
- capacitance value,
- tolerance,
- case style and size,
- dielectric type, and
- temperature co-efficient.

For selection purposes, it is important that QC 001005 contains a full list of the capacitance range for each voltage and not just extreme values. In most detail specifications the relationships among rated voltage, capacitance and case size are covered in a table. The statement of approval may then make reference to that table in such a phrase as: "100nF to 1,0nF at 10V up to 4,7nF at 50V and all intermediate voltages and values as Table II of the detail specification.".

QC 001005 will, following such a statement, then reproduce the capacitance ranges for each of the voltages from 10V to 50V.

Where there is a range of case styles or tolerances quoted in the detail specification, any limits on the actual range approved must be stated, or the following statement must be made: "All tolerances and case styles as in the detail specification."

A.4 Resistors

A.4.1 General

The main variable items common to fixed and variable resistors are

- style,
- rated dissipation,
- resistance value or range,
- tolerance,
- temperature co-efficient, and
- technology.

As generally applied, style is a code which relates to rated dissipation and temperature co-efficient within the detail specification. In many detail specifications no limits or very broad limits are placed on resistance values. As a minimum, therefore, it is essential for resistance ranges to be quoted for each approved style together with the related tolerances.

Where the technology of manufacture is a matter for discretion, the technology of the approved components must be quoted.

A.4.2 Fixed resistors

The above listed items will normally suffice for fixed resistors.

A.4.3 Variable resistors and potentiometers

In addition to the items in the above list, there may also be a need to be specific about which of the following is covered by an approval:

- resistance law;
- termination variants;
- mounting variants.

A.5 Discrete semiconductors

A.5.1 General

The main information items needed for discrete semiconductors are

- pro-electron, JEDEC or manufacturer's type number,
- package type,
- assessment levels, and
- screening classes.

In almost all cases the type number carries, by implication, all the necessary information, so a full list of type numbers in the statement of approval is essential.

Where the specification covers more than one assessment level, the statement of approval must make clear for which level(s) the approval has been granted.

If the approved components are approved with additional screening then the additional levels available must be given with a statement as to whether screening is or is not optional.

A.5.2 Transistors

Where there are permitted variants of the basic type, such as selected ranges of h_{21e}, information sufficient to identify these within the detail specification must be included.

A.5.3 Diodes et thyristors

A single specification often covers a range of voltages, either maximum reverse voltages or operating voltage for regulator and reference diodes. Where the approved range is less than that covered by the specification, then the certificate must clearly identify those items that are approved, otherwise it must state that the approval is for the full range of the specification.

A.6 LF connectors

The main items which may need to be covered in defining the scope of an approval are

- connector style,
- shell size,
- number of contacts,
- contact arrangements,
- contact style,
- polarization,
- contact finish,
- termination type,
- accessories,
- tools,
- complete assemblies, and
- mounting.

Since all combinations of the above variants may not be covered by an approval, the relevant limitations must be clearly shown.

A.7 Monolithic integrated circuits

The main variable items for integrated circuits are

- generic type number,
- operating temperature range,
- package type,
- assessment levels, and
- additional screening classes.

In most cases, a single specification document covers a range of all of these.

The statement of approval must make clear which temperature ranges are approved.

Package type information is of two kinds:

- outline dimensions;
- encapsulation materials and construction.

The statement of approval must make clear what package types are approved by quoting both the above points. To avoid confusion, the statement on approved encapsulation materials and construction should use precisely the same form of words as in the detail specification.

The assessment level or levels for which the approval is granted must be clearly stated.

If the approved components are approved with additional screening then the additional levels available must be given with a statement as to whether screening is or is not optional.

A.8 Switches

For electromechanical switches, information on the following items (where relevant) should be included on the certificate where the detail specification covers a range of different types:

- style or pattern code;
- termination variants;
- mounting variants;
- sealing;
- function variants;
- contact variants;
- number of poles;
- number of ways;
- number of wafers.

In some cases, for example wafer switch assemblies, more information may need to be given to define fully the scope of the approval.

A.9 Printed boards

The following items shall be included in the capability summary abstract as a minimum:

- base material;
- surface finishes, metallic and organic;
- maximum dimensions;
- maximum number of layers for multilayer boards;
- minimum diameter of plated-through holes;
- aspect ratio of plated-through holes.

NOTE Additional features may be included provided they come within the scope of the CapDS.

For approvals granted against CapDS, the certificate shall quote the codes for the base materials and finishes as required by those documents. The certificate shall not show approval for any materials or finishes other than those covered by the relevant CapDS.

Annex B
(informative)

Certified Records of Released Lots
(reproduced from QC 001002, 1986, clause 14, with minor editing)

B.1 Introduction

A Certified Record of Released Lots (CRRL) presents in a concise form the accumulated results of the tests which are specified in the relevant detail specification as appropriate for inclusion.

B.2 General

B.2.1 When the relevant detail specification requires issue of a CRRL, it shall indicate the tests for which the results shall be presented and specify how these results shall be expressed.

Such records shall include information obtained from endurance tests (see B.3.2) and may include information obtained from environmental or other tests (see B.3.3).

B.2.2 The CRRL shall be prepared only for components with a valid Qualification Approval and shall not include results from rejected lots. Information on a number of structurally similar components may be collected together in one test record.

The results for all specimens from accepted lots submitted for testing shall be included in the record.

B.2.3 Results shall be accumulated over a six months' or other specified period and presented at these intervals. If, additionally, accumulation of information over a longer period is desirable, then a three years' period is recommended.

B.2.4 The accuracy of the information contained in the CRRL shall be certified by the DMR and shall be authenticated by the NSI.

B.2.5 The information contained in the CRRL is the property of the manufacturer and shall not be disclosed without his permission.

Copies of the current CRRL shall be made available by the manufacturer on request to users of the electronic components it concerns. The manufacturer may refuse such a request where it is considered unreasonable or mischievous.

B.3 Contents of a Certified Record of Released Lots

B.3.1 Each CRRL shall give the following information:

— the manufacturer's name and place of manufacture of the component;

— reference to the appropriate detail specification and to the manufacturer's type designation or identification:

— the dates of the period covered by the CRRL;

- a statement that the contents are accurate, certified by the signature of the DMR and authenticated by the NSI;
- identification of each test.

The manufacturer may at his discretion give a short explanatory note on any section of the test record.

B.3.2 The results of the endurance tests called for in the relevant detail specification shall show the total number of specimens tested and the number of defectives found.

Where required by the specification, the initial, intermediate and final values of characteristics selected to evaluate the behaviour of the component shall be given. These should preferably be given as actual measured values (up to 20) or a group frequency distribution table (more than 20 units).

B.3.3 If required by the relevant specification, the results of certain environmental or other tests shall be given, but these should be limited so that the CRRL is not more than two pages in length.

Such results shall be expressed by attributes giving the number of components tests and number of defectives for the period covered by the CRRL.

(Continued from second cover)

IEC QC 200000 (1996)	Process assessment schedules for requirements under the IECQ for approval of specialist contractors' processes and/or products within the electronic components industry
IEC QC 210000 (1995)	Technology approval schedules. Requirements under the IECQ
IEC Guide 102	Electronic components — Specification structures for quality assessment (Qualification approval and capability approval)

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